Patent claims

1.   A portable microprocessor-assisted data medium
      able to be operated both in contacted and
5   contactless fashion, where

      -    in contacted mode, data transmission takes
           place between the portable data medium and a
           data input/data output unit operating in
           contacted fashion,

10   -   in contactless mode, data transmission takes
           place between the portable data medium and a
           data input/data output unit operating in
           contactless fashion,

      -    the portable data medium has at least one
15   memory divided into various memory areas,

      -    the portable data medium stores at least one
           access condition for at least one memory
           area, said access condition defining the
           condition under which access to this memory
20   area is permitted,

      wherein

      the portable data medium stores at least one data
      transmission-specific access condition for at
      least one memory area, said access condition

25   defining, on the basis of the type of data
      transmission between the portable data medium and

a data input/data output unit, the condition under which access to this memory area is permitted.

2.   The portable microprocessor-assisted data medium
5   as claimed in claim 1,
      wherein
      a data access condition transmission-specific for
      the contactless mode is provided for at least one
      memory area, said access condition prohibiting any
10   access (all access types, commands) to this memory
      area in the portable data medium's contactless
      mode.

3.   The portable microprocessor-assisted data medium
15   as claimed in claim 1 or 2,
      wherein
      a data transmission-specific access condition for
      the contactless mode is provided for at least one
      memory area, said access condition defining
20   different conditions under which access is
      permitted for each of at least two different
      access types in the portable data medium's
      contactless mode.

25 4.   The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims,
      wherein

various access types are allocated different data transmission-specific access conditions for a memory area for the contactless mode, said access conditions defining the conditions under which

5   access is permitted for the respective access type in the portable data medium's contactless mode.

5.   The portable microprocessor-assisted data medium as claimed in one of the preceding claims,

10   wherein

a data transmission-specific access condition for the contacted mode is provided for at least one memory area, said access condition prohibiting any access to this memory area in the portable data

15   medium's contacted mode.

6.   The portable microprocessor-assisted data medium as claimed in one of the preceding claims, wherein

20   a data transmission-specific access condition for the contacted mode is provided for at least one memory area, said access condition defining different conditions under which access is permitted for each of at least two different

25   access types in the portable data medium's contacted mode.

7.   The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims,
      wherein
      various access types are allocated different data
 5   transmission-specific access conditions for a
      memory area for the contacted mode, said access
      conditions defining the conditions under which
      access is permitted for the respective access type
      in the portable data medium's contacted mode.

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8.   The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims,
      wherein,
      for at least one memory area and for at least one
15   access type, one data transmission-specific access
      condition is provided for the contacted mode and
      one data transmission-specific access condition is
      provided for the contactless mode.

20 9.   The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims,
      wherein
      it is designed such that the data transmission-
      specific access condition can be input into a
25   freely programmable nonvolatile memory in the
      portable data medium by authorized agencies using
      an item of secret information.

10.   The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims,
      wherein

5   it is designed such that the data transmission-
      specific access condition can be reprogramed into
      the portable data medium by authorized agencies
      using an item of secret information.

10 11.   The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims 1 to 8,
      wherein
      the data transmission-specific access condition is
      stored in a nonmodifiable read only memory in the
15   portable data medium.

    12.   A method for carrying out communication between a
      portable microprocessor-assisted data medium and a
      data input/data output unit operating in contacted
20   fashion or a data input/data output unit operating
      in contactless fashion, where
      -     the portable data medium has at least one
            memory divided into various memory areas,
      -     the portable data medium stores at least one
25   data transmission-specific access condition
            for at least one memory area, said access
            condition defining, on the basis of the type

of data transmission between the portable
data medium and a data input/data output
unit, the condition under which access to
this memory area is permitted,

5   wherein,

before this memory area is accessed (an access
command transmitted by the data input/data output
unit is executed), the portable data medium itself
uses a checking program stored in the portable

10   data medium to read the data transmission-specific
access condition associated with this memory area
and to check whether, in consideration of the data
transmission-specific access condition, the
desired access command is permitted in the case of

15   the particular current type of data transmission,
and the access command is executed only if the
result of the check is that access is permitted.